

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
27 January 2005 (27.01.2005)

PCT

(10) International Publication Number  
**WO 2005/007920 A2**

(51) International Patent Classification<sup>7</sup>:

C23C

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/US2004/022615

(22) International Filing Date: 13 July 2004 (13.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/487,094 14 July 2003 (14.07.2003) US  
60/527,917 8 December 2003 (08.12.2003) US

(71) Applicant (for all designated States except US): **TOSOH SMD, INC. [US/US]**; 3600 Gantz Road, Grove City, OH 43123 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BAILEY, Robert, S. [US/US]**; 1493 Trail Court, Grove City, OH 43123 (US). **HOLCOMB, Melvin, K. [US/US]**; 2205 Buttercup Lane, Grove City, OH 43123 (US).

(74) Agents: **ELLSWORTH, Jeffrey, S. et al.**; Wegman, Hessler & Vanderburg, 6055 Rockside Woods Boulevard, Suite 200, Cleveland, OH 44131 (US).

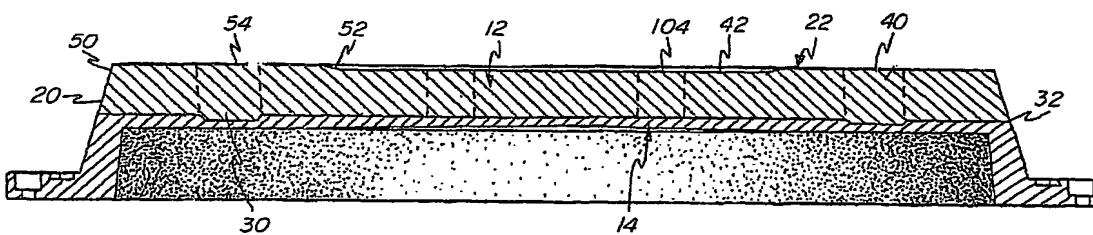
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SPUTTERING TARGET ASSEMBLY HAVING LOW CONDUCTIVITY BACKING PLATE AND METHOD OF MAKING SAME



WO 2005/007920 A2

(57) Abstract: A target and backing plate assembly and method of making the same. The backing plate is made of a material having an electrical conductivity less than or equal to 45 % IACS and is selected from the group consisting of Al alloys, Cu alloys, magnesium, magnesium alloys, molybdenum, molybdenum alloys, zinc, zinc alloys, nickel and nickel alloys.